

What is claimed is:

1. An article management system wherein a noncontact electronic tag storing tag data is attached to an article to be managed in a management area, the system comprising:

5 a passage radio communication unit disposed in a passage section leading to the management area, the passage radio communication unit communicating with the noncontact electronic tag attached to the article passing through the passage section, and executing tag access processing to read
10 the tag data stored in the noncontact electronic tag.

2. The article management system as claimed in claim 1, wherein the tag access processing includes:

interrogation communication processing of setting a part
15 of predetermined data stored in the noncontact electronic tag as reference for determining a response timing for causing the noncontact electronic tag to transmit response data and transmitting specification data specifying the part of the predetermined data; and

20 repetitive processing of changing a specification position in the specification data and again executing the interrogation communication processing when one piece of response data transmitted from a plurality of noncontact electronic tags at the same response timing and received by
25 the passage radio communication unit collides with another.

3. The article management system as claimed in claim 2,
wherein a limitation condition is set for terminating repetition
of the repetitive processing regardless of whether or not
5 collision avoidance is accomplished.

4. The article management system as claimed in claim 1,
wherein the noncontact electronic tag stores inhibition
detection-possible data indicating permission or inhibition
10 of passage through the passage section, and wherein the passage
radio communication unit executes the tag access processing
when the passage radio communication unit detects the noncontact
electronic tag attached to the article whose inhibition
detection-possible data indicates inhibition of passage
15 through the passage section.

5. The article management system as claimed claim 1,
further comprising:

a user radio electronic medium capable of identifying
20 each user and storing user data, the user radio electronic medium
communicating with the passage radio communication unit,

wherein the passage radio communication unit is set to
receive the user data from the user radio electronic medium.

25 6. The article management system as claimed in claim 1,

wherein the tag data is article-unique data capable of identifying each article, and includes at least one of unique ID given for each noncontact electronic tag and article data.

5 7. The article management system as claimed in claim 1,
wherein the tag access processing includes at least one of access
processing of transmitting an interrogation signal to the
noncontact electronic tag and receiving a response signal from
the noncontact electronic tag, multiple tag access processing
10 of transmitting an interrogation signal to a plurality of
noncontact electronic tags and receiving a response signal while
reliably circumventing a collision, and simple tag access
processing of transmitting an interrogation signal to a
plurality of noncontact electronic tags and receiving a response
15 signal while circumventing a collision to some extent.

8. A noncontact electronic tag storing inhibition
detection-possible data indicating permission or inhibition
of passage through the passage section as an application family
20 identifier.

9. An article management method using a noncontact
electronic tag storing tag data which is attached to an article
to be managed in a management area, the method comprising:
25 communicating with the noncontact electronic tag attached

to the article passing through a passage section leading to the management area; and

executing tag access processing to read the tag data stored in the noncontact electronic tag.

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10. The article management method as claimed in claim 9, wherein the tag access processing includes:

interrogation communication processing of setting a part of predetermined data stored in the noncontact electronic tag as reference for determining a response timing for causing the noncontact electronic tag to transmit response data and transmitting specification data specifying the part of the predetermined data; and

repetitive processing of changing a specification position in the specification data and again executing the interrogation communication processing when one piece of response data transmitted from a plurality of noncontact electronic tags at the same response timing and received by the passage radio communication unit collides with another.

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11. The article management method as claimed in claim 9, wherein the tag access processing is executed for the noncontact electronic tag attached to the article whose passage is inhibited.

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12. The article management method as claimed claim 9,
further comprising:

communicating with a user radio electronic medium capable
of identifying each user and storing user data to receive the
5 user data from the user radio electronic medium.

13. A computer-readable medium storing instructions for
operating an article management system wherein a noncontact
electronic tag storing tag data is attached to an article to
10 be managed in a management area, said instructions comprising;

communicating with the noncontact electronic tag attached
to the article passing through a passage section leading to
the management area; and

executing tag access processing to read the tag data stored
15 in the noncontact electronic tag.

14. The computer-readable medium storing instructions
for operating an article management system as claimed in claim
13, wherein the tag access processing includes:

20 interrogation communication processing of setting a part
of predetermined data stored in the noncontact electronic tag
as reference for determining a response timing for causing the
noncontact electronic tag to transmit response data and
transmitting specification data specifying the part of the
25 predetermined data; and

repetitive processing of changing a specification position in the specification data and again executing the interrogation communication processing when one piece of response data transmitted from a plurality of noncontact electronic tags at the same response timing and received by the passage radio communication unit collides with another.

15. The computer-readable medium storing instructions for operating an article management system as claimed in claim 13, wherein the tag access processing is executed for the noncontact electronic tag attached to the article whose passage is inhibited.

16. The computer-readable medium storing instructions for operating an article management system as claimed in claim 13, said instruction further comprising:

communicating with a user radio electronic medium capable of identifying each user for user and storing user data to receive the user data from the user radio electronic medium.

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